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SYSTEM AND METHOD FOR RE-SEQUENCING DATA PAKETS ON A PER-FLOW BASIS

ABSTRACT

In a network device packets are marked with sequence identifiers at ingress of ~~said~~ the device, switched through a plurality of switching planes and re-sequence on a per flow basis at egress of the device. The re-sequencing system includes a controller that allocates to each received data packet a temporary storage location in a packet buffer. A plurality of output registers are ~~providers~~ provided, with each one ~~of each being~~ associated with a flow. A pointer uses predefined parameters to point to an output register that has been previously assigned to receive data packets from the corresponding flow ~~corresponding to each received data packet~~. Parameters in the pointed output register are correlated with parameters in a received packet to determine if the received packet is next in sequence to packets process through a particular queue.